

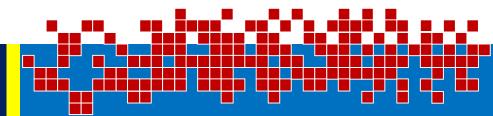


#### About us

Poola Energy (SPS) is an innovative renewable energy company and EPC service provider for solar photovoltaic power systems. We believe in innovating and delivering the technically advanced solar power systems to empower you in this endeavor. SPS is the only manufacturer in the world to provide cell to cell serviceable solar panels that meets quality standards and international norms. With our patented panel technology, we promise our clientele in providing comprehensive solar power solutions with versatility and durability. SPS is equipped with the state-of-the-art machinery capable of producing 100MW solar modules per annum. SPS R&D team indigenously developed the machinery to manufacture serviceable solar panels. Our core competencies stand in our ability to offer unparalleled customer service, continued technological advancement and economic viability. Our no pressure sales approach, industry leading warranties and service guarantee makes your investment with us risk free. Below are the reasons to choose us

- Life time service guarantee
- Stringent / extensive design
- Low maintenance and service cost
- Dedicated R&D department
- Highly trained staff
- High returns from our solar installations





### **SOLAR PANELS**

## Designed for High Performance

SPS manufactures a range of Topcon, Mono PERC and Polycrystalline PV modules ranging from 40W to 620W. Bifacial modules are manufactured on order basis. Our panels are CE & BIS certified as per IS/IEC standards and are suitable for a wide range of applications.











PVG module technology is indigenously developed by SPS

Excellent low light performance
Build with A grade materials

Mono perc module conversion efficiency is up to 22.1%

Poly module conversion efficiency is up to 18.1%

world's first serviceable solar panels

Resilience to extreme weather IP67 rated

Delivers 6.3% higher annual yield compared to conventional

PID Resistance Technology
Eliminates Power loss by strain
currents



### Models of Solar panels manufactured

- Mono PERC solar modules with 10BB cell technology 550W
- Topcon solar modules with 10BB cell technology 590W

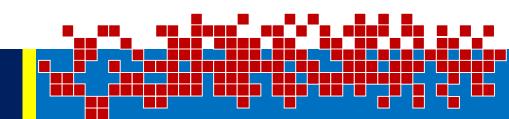
### **Features of Solar Modules**

- High annual yield
   High efficient material usage with unique production methodology ensures higher annual yield up to 6.3% and stable operation
- IP67 rated solar panel
- Service (applicable to Glass-Glass modules only)
   Solar panels are serviceable throughout the life time of 25 years
   5-years free service (terms and conditions apply)
   Promise cell to cell replacement

Depreciation price on solar module is given to users after life time of 25 years

- PID free
- Excellent performance with weak lights
- Withstand Wind load up to 2400 pa and snow load up to 5400pa
- 0 5W positive power tolerance

- AR coated high transmission glass
- Anodized aluminum frame
- 100% reusable



### **SPECIFICATION 144 CELL MONO PERC HALFCUT 10BB**

Electrical data at 1000 W/m², 25°C and A.M. 1.5 (STC in accordance with IEC 60904-3)

MODEL NAME	SPS MH144- 525	SPS MH144- 530	SPS MH144- 540	SPS MH144- 550
Rated power at STC	525 Wp	530 Wp	540 Wp	550 Wp
Module efficiency at STC	20.3 %	20.5%	20.9%	21.3%
Open circuit voltage (Voc)	49.15V	49.3 V	49.6 V	49.9 V
Short circuit current (Isc)	13.65 A	13.72 A	13.66 A	14.00 A
Max power voltage (Vpm)	41.15 V	41.31 V	41.64 V	41.96 V
Max power current (Ipm)	12.76 A	12.83 A	12.97 A	13.11 A

### Thermal data

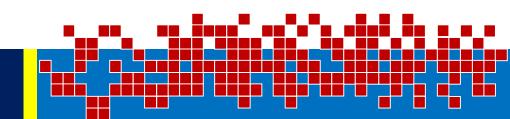
Temperature coefficient open circuit voltage	-0.275% / °K
Temperature coefficient short circuit current	+0.045% / °K
Temperature coefficient rated power	-0.35% / °K
NOCT (normal operating cell temperature)	$46^{\circ}\text{C} \pm 2^{\circ}\text{C}$

#### Mechanical data

Number of cells & cell	144 Mono Halfcut 182 mm solar cells
Type dimensions (L X W X T)	2327 mm x 1168 mm x 40 mm
Weight	35 Kg
Double glass	2 mm high transmission AR coated tempered
Double glass	glass
Number of bypass diodes	3
Junction box and panel	IP67
Cables	4 mm <sup>2</sup> solar cables, length   200 mm
Connectors	MC4 compatible

### Permissible operating conditions

Operating temperature range	-40°C TO 85°C
Max. System voltage	1500 VDC
Max. Reverse current	25 A
Max. Surface load capacity	5400 Pa
Protection class	II
Ingress protection	IP67



### **SPECIFICATION 144 CELL TOPCON HALFCUT 10BB**

Electrical data at 1000 W/m², 25°C and A.M. 1.5 (STC in accordance with IEC 60904-3)

MODEL NAME	SPS TH144- 575	SPS TH144- 580	SPS TH144- 585	SPS TH144- 590
Rated power at STC	575 Wp	580 Wp	585 Wp	590 Wp
Module efficiency at STC	20.24 %	22.44%	22.63%	22.84%
Open circuit voltage (Voc)	51.3 V	51.34 V	51.38 V	51.44 V
Short circuit current (Isc)	13.71 A	13.83 A	13.93 A	14.04 A
Max power voltage (Vpm)	44.03 V	44.07 V	44.12 V	44.16 V
Max power current (Ipm)	13.06 A	13.17 A	13.27 A	13.37 A

#### Thermal data

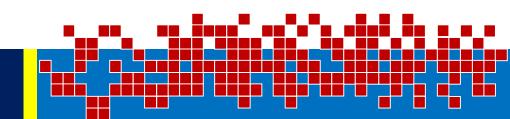
Temperature coefficient open circuit voltage	-0.27% / °K
Temperature coefficient short circuit current	+0.04% / °K
Temperature coefficient rated power	-0.3% / °K
NOCT (normal operating cell temperature)	$42^{\circ}\text{C} \pm 3^{\circ}\text{C}$

#### Mechanical data

Number of cells & cell	144 Topcon Halfcut 182 mm solar cells
Type dimensions (L X W X T)	2327 mm x 1168 mm x 40 mm
Weight	35 Kg
Double glass	2 mm high transmission AR coated tempered glass
Number of bypass diodes	3
Junction box and panel	IP67
Cables	4 mm <sup>2</sup> solar cables, length 1200 mm
Connectors	MC4 compatible

### Permissible operating conditions

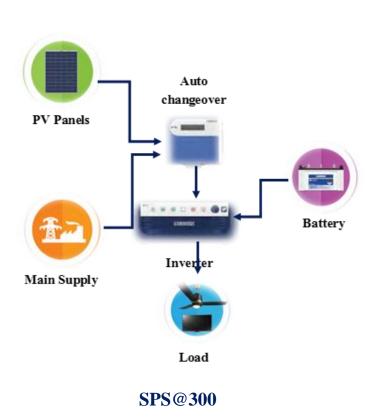
Operating temperature range	-40°C TO 85°C
Max. System voltage	1500 VDC
Max. Reverse current	25 A
Max. Surface load capacity	5400 Pa
Protection class	II
Ingress protection	IP67





### **SPS Solar Power Packs**

SPS manufactures a wide range of solar power packs which are best in class in terms of quality, durability and serviceability. The below solar power packs manufactured by SPS reduces the electricity bill by a minimum of 60%.



SPS provides a solar panel with 300W capacity along with mounting structure

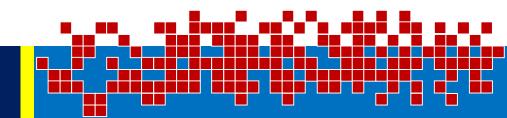
A powerful inverter with charge controller of 1150W

Provided with a battery of 150Ah @12V to support 14 hours of operation per day

SPS provide 10-year product warranty on solar panels and 1 year on other items

Capable of running 5 lights, 5 fans, 1 fridge and 1 TV

25-year service guarantee for the solar panels





SPS provides a solar panel with 600W capacity along with mounting structure

A powerful inverter with charge controller of 1150W

Provided with a battery of 300Ah @12V to support 17 hours of operation per day

SPS provide 10-year product warranty on solar panels and 1 year on other items

Capable of running 5 lights, 5 fans, 1 fridge and 1 TV

25-year service guarantee for the solar panels

### SPS RETROFIT for existing UPS users

SPS provides a solar panel with 300W capacity along with mounting structure

A powerful controller suitable for charging battery bank of 12V or 24V

Feasible for 200 / 300Ah @ 12 / 24V battery to support 14 to 15 hours of operation per day

SPS provide 10-year product warranty on solar panels and 1 year on other items

25-year service guarantee for the solar

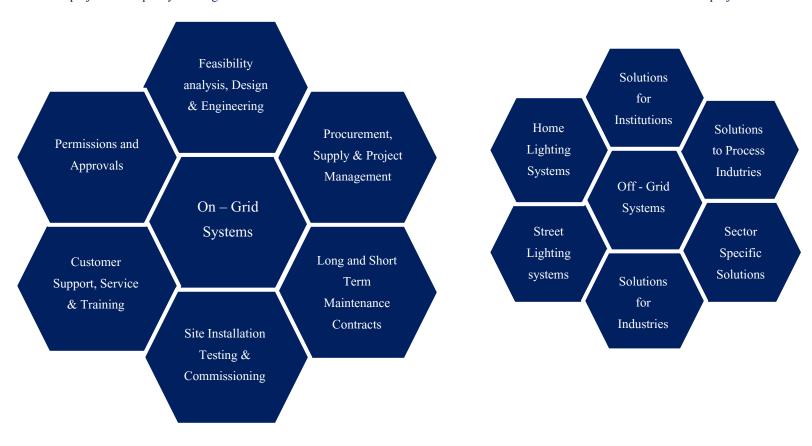






### **EPC** services offered by SPS

SPS guarantees the setting up of any solar power plant ranging from 1 kW to 1 GW a hassle free and a rewarding experience for any project developer by offering an end-end customized solution. SPS offers EPC services for both On - Grid and Off - Grid solar projects.





# POOLA ENERGY PVT., LTD.

Let the Sun Energize Your Abode

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ISO 9001:2015

